

In the Specification:

Please substitute the following pages to the Specification: (Replacement
pages 4, 5, 23 and 137 - 170).

Q1 - Q3 - placed in spec.



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human respiratory syncytial virus (RSV), human parainfluenza virus (HPV), measles virus (MeV) and simian immunodeficiency virus (SIV).

BRIEF DESCRIPTION OF THE TABLES

5 The invention will be better understood by reference to the Tables, in which:

Table 1 lists the commonly occurring amino acids together with their one letter and three letter abbreviations, and common protecting groups.

10 Table 2 shows DP178 carboxy truncations including SEQ ID NO:1 and 87-116.

Table 3 shows DP178 amino truncations including SEQ ID NO:1 and 117-146.

Table 4 shows DP107 carboxy truncations including SEQ ID NO:2 and 147-178.

15 Table 5 shows DP107 amino truncations including SEQ ID NO:2 and 179-210.

Table 6 shows HIV-2_{NIH2} DP178 analog carboxy truncations including SEQ ID NO:7 and 211-240.

20 Table 7 shows HIV-2_{NIH2} DP178 analog amino truncations including SEQ ID NO:7 and 241-270.

Table 8 shows RSV F2 region DP107 analog carboxy truncations including SEQ ID NO:13 and 271-312.

Table 9 shows RSV F2 region DP107 analog amino truncations including SEQ ID NO:313-353.

25 Table 10 shows RSV F1 region DP178 analog carboxy truncations including SEQ ID NO:354-385.

Table 11 shows RSV F1 region DP178 analog amino truncations including SEQ ID NO:386-416.

30 Table 12 shows HPV3 F1 region DP 178 analog carboxy truncations including SEQ ID NO:417-446.

Table 13 shows HPV3 F1 region DP 178 analog amino truncations including SEQ ID NO:447-475.

Table 14 shows HPV3 F1 region DP107 analog carboxy truncations including SEQ ID NO:476-504.

5 Table 15 shows HPV3 F1 region DP107 analog amino truncations including SEQ ID NO:505-533.

Table 16 shows representative anti-RSV peptides of SEQ ID NO:15-30.

Table 17 shows representative anti-HPV3 peptides of SEQ ID NO:33-62.

Table 18 shows representative anti-SIV peptides of SEQ ID NO:64-73.

10 Table 19 shows representative anti-MeV peptides of SEQ ID NO:76-86.

BRIEF DESCRIPTION OF SEQUENCE LISTING

The invention will be better understood by reference to the Sequence Listing, in which:

15

SEQ ID NO:1 shows the peptide sequence of DP178;

SEQ ID NO:2 shows the peptide sequence of DP107;

SEQ ID NO:3-7 show peptide sequences of certain DP178 analogs;

SEQ ID NO:8-9 show peptide sequences of certain DP107 analogs;

20 SEQ ID NO:10-30 show the peptide sequences of RSV F1 region and F2 region corresponding to DP178 and DP107, and representative anti-RSV peptides;

SEQ ID NO:31-62 show the peptide sequences of HPIV3 F1 region corresponding to DP178 and DP107, and representative anti-HPIV3 peptides;

25 SEQ ID NO:63-73 show peptide sequences of SIV corresponding to DP178 and representative anti-SIV peptides;

SEQ ID NO:74-86 show peptide sequences of MeV corresponding to DP178 and representative anti-MeV peptides;

SEQ ID NO:87-116 show peptide sequences of DP178 carboxy truncations;

30 SEQ ID NO:117-146 show peptide sequences of DP178 amino truncations;

ID NO:52 and SEQ ID NO:58 each have amino acid sequences contained within the peptide of SEQ ID NO:31 and each has been shown to exhibit anti-HPIV-3 activity, in particular, inhibiting fusion and syncytia formation between HPIV-3-infected Hep2 cells and uninfected CV-1W cells at concentrations of less than 1 $\mu\text{g/ml}$.

5

The peptide of SEQ ID NO:32 is also derived from the F1 region of HPIV-3 and was identified in U.S. Patent Nos. 6,103,236 and 6,020,459 using the search motifs described as corresponding to DP178 (i.e., "DP178-like"). The peptides of SEQ ID NO:35 and SEQ ID NO:38 to SEQ ID NO:42 each have amino acid sequences contained within the peptide of SEQ ID NO:32 and each also has been shown to exhibit anti-HPIV-3 activity, in particular, inhibiting fusion and syncytia formation between HPIV-3-infected Hep2 cells and uninfected CV-1W cells at concentrations of less than 1 $\mu\text{g/ml}$.

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C. Anti-MeV Peptides

Anti-MeV peptides are DP178 and/or DP107 analogs identified from corresponding peptide sequences in measles virus (MeV) which have further been identified to inhibit viral infection by the measles virus. Such peptides of particular interest include the peptides of Table 19 and peptides of SEQ ID NO:74 to SEQ ID NO:86. Of particular interest are the peptides listed below.

20

25

HRIDLGPPISLERLDVGTNLGNAIAKLEAKELLE (SEQ ID NO:77)
IDLGPPISLERLDVGTNLGNAIAKLEAKELLE (SEQ ID NO:79)
LGPPISLERLDVGTNLGNAIAKLEAKELLE (SEQ ID NO:81)
PISLERLDVGTNLGNAIAKLEAKELLE (SEQ ID NO:84)

30

Sequences derived from measles virus were identified in U.S. Patent Nos. 6,103,236 and 6,020,459 using the search motifs described as corresponding to

TABLE 2

DP178 CARBOXY TRUNCATIONS		
5	YTS	
	YTSL	
	YTSLI	
	YTSLIH	SEQ ID NO:116
	YTSLIHS	SEQ ID NO:115
10	YTSLIHSL	SEQ ID NO:114
	YTSLIHSLI	SEQ ID NO:113
	YTSLIHSLIE	SEQ ID NO:112
	YTSLIHSLIEE	SEQ ID NO:111
	YTSLIHSLIEES	SEQ ID NO:110
15	YTSLIHSLIEESQ	SEQ ID NO:109
	YTSLIHSLIEESQN	SEQ ID NO:108
	YTSLIHSLIEESQNNQ	SEQ ID NO:107
	YTSLIHSLIEESQNNQQ	SEQ ID NO:106
	YTSLIHSLIEESQNNQQE	SEQ ID NO:105
20	YTSLIHSLIEESQNNQQEK	SEQ ID NO:104
	YTSLIHSLIEESQNNQQEKN	SEQ ID NO:103
	YTSLIHSLIEESQNNQQEKNE	SEQ ID NO:102
	YTSLIHSLIEESQNNQQEKNEQ	SEQ ID NO:101
	YTSLIHSLIEESQNNQQEKNEQE	SEQ ID NO:100
25	YTSLIHSLIEESQNNQQEKNEQEL	SEQ ID NO:99
	YTSLIHSLIEESQNNQQEKNEQELL	SEQ ID NO:98
	YTSLIHSLIEESQNNQQEKNEQELLE	SEQ ID NO:97
	YTSLIHSLIEESQNNQQEKNEQELLEL	SEQ ID NO:96
	YTSLIHSLIEESQNNQQEKNEQELLELD	SEQ ID NO:95
30	YTSLIHSLIEESQNNQQEKNEQELLELDK	SEQ ID NO:94

YTSLIHS�IEESQNQQEKNEQELLELDKW _____ SEQ ID NO:93

YTSLIHS�IEESQNQQEKNEQELLELDKWA _____ SEQ ID NO:92

YTSLIHS�IEESQNQQEKNEQELLELDKWAS _____ SEQ ID NO:91

YTSLIHS�IEESQNQQEKNEQELLELDKWASL _____ SEQ ID NO:90

5 YTSLIHS�IEESQNQQEKNEQELLELDKWASLW _____ SEQ ID NO:89

YTSLIHS�IEESQNQQEKNEQELLELDKWASLWN _____ SEQ ID NO:88

YTSLIHS�IEESQNQQEKNEQELLELDKWASLWNW _____ SEQ ID NO:87

YTSLIHS�IEESQNQQEKNEQELLELDKWASLWNWF _____ SEQ ID NO:1

10 The one letter amino acid code of Table 1 is used.

TABLE 3

DP178 AMINO TRUNCATIONS		
5	NWF	
	WNWF	
	LWNWF	
10	SLWNWF	SEQ ID NO:146
	ASLWNWF	SEQ ID NO:145
	WASLWNWF	SEQ ID NO:144
	KWASLWNWF	SEQ ID NO:143
	DKWASLWNWF	SEQ ID NO:142
15	LDKWASLWNWF	SEQ ID NO:141
	ELDKWASLWNWF	SEQ ID NO:140
	LELDKWASLWNWF	SEQ ID NO:139
	LLELDKWASLWNWF	SEQ ID NO:138
	ELLELDKWASLWNWF	SEQ ID NO:137
20	QELLELDKWASLWNWF	SEQ ID NO:136
	EQELLELDKWASLWNWF	SEQ ID NO:135
	NEQELLELDKWASLWNWF	SEQ ID NO:134
	KNEQELLELDKWASLWNWF	SEQ ID NO:133
	EKNEQELLELDKWASLWNWF	SEQ ID NO:132
25	QEKNEQELLELDKWASLWNWF	SEQ ID NO:131
	QQEKNEQELLELDKWASLWNWF	SEQ ID NO:130
	NQQEKNEQELLELDKWASLWNWF	SEQ ID NO:129
	QNQQEKNEQELLELDKWASLWNWF	SEQ ID NO:128
	SQNQQEKNEQELLELDKWASLWNWF	SEQ ID NO:127
30	ESQNQQEKNEQELLELDKWASLWNWF	SEQ ID NO:126

	EESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:125</u>
	IEESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:124</u>
	LIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:123</u>
	SLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:122</u>
5	HSLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:121</u>
	IHSLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:120</u>
	LIHSLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:119</u>
	SLIHSLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:118</u>
	TSLIHSLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:117</u>
10	YTSLIHSLIESQNQQEKNEQEELLELDKWASLWNWF_____	<u>SEQ ID NO:1</u>

The one letter amino acid code of Table 1 is used.

TABLE 4

DP107 CARBOXY TRUNCATIONS		
5	NNL	
	NNLL	
	NNLLR	
	NNLLRA	SEQ ID NO:178
	NNLLRAI	SEQ ID NO:177
10	NNLLRAIE	SEQ ID NO:176
	NNLLRAIEA	SEQ ID NO:175
	NNLLRAIEAQ	SEQ ID NO:174
	NNLLRAIEAQQ	SEQ ID NO:173
	NNLLRAIEAQQH	SEQ ID NO:172
15	NNLLRAIEAQQHL	SEQ ID NO:171
	NNLLRAIEAQQHLL	SEQ ID NO:170
	NNLLRAIEAQQHLLQ	SEQ ID NO:169
	NNLLRAIEAQQHLLQL	SEQ ID NO:168
	NNLLRAIEAQQHLLQLT	SEQ ID NO:167
20	NNLLRAIEAQQHLLQLTV	SEQ ID NO:166
	NNLLRAIEAQQHLLQLTVW	SEQ ID NO:165
	NNLLRAIEAQQHLLQLTVWQ	SEQ ID NO:164
	NNLLRAIEAQQHLLQLTVWQI	SEQ ID NO:163
	NNLLRAIEAQQHLLQLTVWQIK	SEQ ID NO:162
25	NNLLRAIEAQQHLLQLTVWQIKQ	SEQ ID NO:161
	NNLLRAIEAQQHLLQLTVWQIKQL	SEQ ID NO:160
	NNLLRAIEAQQHLLQLTVWQIKQLQ	SEQ ID NO:159
	NNLLRAIEAQQHLLQLTVWQIKQLQA	SEQ ID NO:158
	NNLLRAIEAQQHLLQLTVWQIKQLQAR	SEQ ID NO:157
30	NNLLRAIEAQQHLLQLTVWQIKQLQARI	SEQ ID NO:156

	NNLLRAIEAQQHLLQLTVWQIKQLQARIL_____	<u>SEQ ID NO:155</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILA_____	<u>SEQ ID NO:154</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILAV_____	<u>SEQ ID NO:153</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVE_____	<u>SEQ ID NO:152</u>
5	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVER_____	<u>SEQ ID NO:151</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVERY_____	<u>SEQ ID NO:150</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVERYL_____	<u>SEQ ID NO:149</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVERYLK_____	<u>SEQ ID NO:148</u>
	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVERYLKD_____	<u>SEQ ID NO:147</u>
10	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVERYLKDQ_____	<u>SEQ ID NO:2</u>

The one letter amino acid code of Table 1 is used.

TABLE 5

DP107 AMINO TRUNCATIONS		
5	KDQ	
	LKDQ	
	YLKDQ	
	RYLKDQ	SEQ ID NO:210
	ERYLKDQ	SEQ ID NO:209
10	VERYLKDQ	SEQ ID NO:208
	AVERYLKDQ	SEQ ID NO:207
	LAVERYLKDQ	SEQ ID NO:206
	ILAVERYLKDQ	SEQ ID NO:205
	RILAVERYLKDQ	SEQ ID NO:204
15	ARILAVERYLKDQ	SEQ ID NO:203
	QARILAVERYLKDQ	SEQ ID NO:202
	LQARILAVERYLKDQ	SEQ ID NO:201
	QLQARILAVERYLKDQ	SEQ ID NO:200
	KQLQARILAVERYLKDQ	SEQ ID NO:199
20	IKQLQARILAVERYLKDQ	SEQ ID NO:198
	QIKQLQARILAVERYLKDQ	SEQ ID NO:197
	WQIKQLQARILAVERYLKDQ	SEQ ID NO:196
	VWQIKQLQARILAVERYLKDQ	SEQ ID NO:195
	TVWQIKQLQARILAVERYLKDQ	SEQ ID NO:194
25	LTWQIKQLQARILAVERYLKDQ	SEQ ID NO:193
	QLTVWQIKQLQARILAVERYLKDQ	SEQ ID NO:192
	LQLTVWQIKQLQARILAVERYLKDQ	SEQ ID NO:191
	LLQLTVWQIKQLQARILAVERYLKDQ	SEQ ID NO:190
	HLLQLTVWQIKQLQARILAVERYLKDQ	SEQ ID NO:189
30	QHLLQLTVWQIKQLQARILAVERYLKDQ	SEQ ID NO:188

	QQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:187</u>
	AQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:186</u>
	EAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:185</u>
	IEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:184</u>
5	AIEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:183</u>
	RAIEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:182</u>
	LRAIEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:181</u>
	LLRAIEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:180</u>
	NLLRAIEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:179</u>
10	NNLLRAIEAQQHLLQLTVWQIKQLQARILAVEYLKDQ	<u>SEQ ID NO:2</u>

The one letter amino acid code of Table 1 is used.

TABLE 6

HIV-2 _{NIH} DP178 analog carboxy truncations		
5	LEA	
	LEAN	
	LEANI	
	LEANIS	SEQ ID NO:240
	LEANISQ	SEQ ID NO:239
10	LEANISQS	SEQ ID NO:238
	LEANISQSL	SEQ ID NO:237
	LEANISQSLE	SEQ ID NO:236
	LEANISQSLEQ	SEQ ID NO:235
	LEANISQSLEQA	SEQ ID NO:234
15	LEANISQSLEQAQ	SEQ ID NO:233
	LEANISQSLEQAQI	SEQ ID NO:232
	LEANISQSLEQAQIQ	SEQ ID NO:231
	LEANISQSLEQAQIQQ	SEQ ID NO:230
	LEANISQSLEQAQIQQE	SEQ ID NO:229
20	LEANISQSLEQAQIQQEK	SEQ ID NO:228
	LEANISQSLEQAQIQQEKN	SEQ ID NO:227
	LEANISQSLEQAQIQQEKNM	SEQ ID NO:226
	LEANISQSLEQAQIQQEKNMY	SEQ ID NO:225
	LEANISQSLEQAQIQQEKNMYE	SEQ ID NO:224
25	LEANISQSLEQAQIQQEKNMYEL	SEQ ID NO:223
	LEANISQSLEQAQIQQEKNMYELQ	SEQ ID NO:222
	LEANISQSLEQAQIQQEKNMYELQK	SEQ ID NO:221
	LEANISQSLEQAQIQQEKNMYELQKL	SEQ ID NO:220
	LEANISQSLEQAQIQQEKNMYELQKLN	SEQ ID NO:219
30	LEANISQSLEQAQIQQEKNMYELQKLNS	SEQ ID NO:218

LEANISQSLEQAQIQQEKNMYELQKLNSW_____ SEQ ID NO:217

LEANISQSLEQAQIQQEKNMYELQKLNSWD_____ SEQ ID NO:216

LEANISQSLEQAQIQQEKNMYELQKLNSWDV_____ SEQ ID NO:215

LEANISQSLEQAQIQQEKNMYELQKLNSWDVF_____ SEQ ID NO:214

5 LEANISQSLEQAQIQQEKNMYELQKLNSWDVFT_____ SEQ ID NO:213

LEANISQSLEQAQIQQEKNMYELQKLNSWDVFTN_____ SEQ ID NO:212

LEANISQSLEQAQIQQEKNMYELQKLNSWDVFTNW_____ SEQ ID NO:211

LEANISQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____ SEQ ID NO:7

10 The one letter amino acid code of Table 1 is used.

TABLE 7

HIV-2 _{NIH} DP178 analog amino truncations		
5	NWL	
	TNWL	
	FTNWL	
	VFTNWL	SEQ ID NO:270
	DVFTNWL	SEQ ID NO:269
10	WDVFTNWL	SEQ ID NO:268
	SWDVFTNWL	SEQ ID NO:267
	NSWDVFTNWL	SEQ ID NO:266
	LNSWDVFTNWL	SEQ ID NO:265
	KLNSWDVFTNWL	SEQ ID NO:264
15	QKLNSWDVFTNWL	SEQ ID NO:263
	LQKLNSWDVFTNWL	SEQ ID NO:262
	ELQKLNSWDVFTNWL	SEQ ID NO:261
	YELQKLNSWDVFTNWL	SEQ ID NO:260
	MYELQKLNSWDVFTNWL	SEQ ID NO:259
20	NMYELQKLNSWDVFTNWL	SEQ ID NO:258
	KNMYELQKLNSWDVFTNWL	SEQ ID NO:257
	EKNMYELQKLNSWDVFTNWL	SEQ ID NO:256
	QEKNMYELQKLNSWDVFTNWL	SEQ ID NO:255
	QQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:254
25	IQQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:253
	QIQQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:252
	AQIQQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:251
	QAQIQQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:250
	EQAQIQQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:249
30	LEAQIQQEKNMYELQKLNSWDVFTNWL	SEQ ID NO:248

	SLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:247</u>
	QSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:246</u>
	SQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:245</u>
	ISQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:244</u>
5	NISQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:243</u>
	ANISQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:242</u>
	EANISQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:241</u>
	LEANISQSLEQAQIQQEKNMYELQKLNSWDVFTNWL_____	<u>SEQ ID NO:7</u>

10 The one letter amino acid code of Table 1 is used.

TABLE 8

RESPIRATORY SYNCYTIAL VIRUS (RSV) DP107 F2		
REGION ANALOG CARBOXY TRUNCATIONS		
5	YTS	
	YTSV	
	YTSVI	
	YTSVIT	SEQ ID NO:312
10	YTSVITI	SEQ ID NO:311
	YTSVITIE	SEQ ID NO:310
	YTSVITIEL	SEQ ID NO:309
	YTSVITIELS	SEQ ID NO:308
	YTSVITIELSN	SEQ ID NO:307
15	YTSVITIELSNI	SEQ ID NO:306
	YTSVITIELSNIK	SEQ ID NO:305
	YTSVITIELSNIKE	SEQ ID NO:304
	YTSVITIELSNIKEN	SEQ ID NO:303
	YTSVITIELSNIKENK	SEQ ID NO:302
20	YTSVITIELSNIKENKC	SEQ ID NO:301
	YTSVITIELSNIKENKCN	SEQ ID NO:300
	YTSVITIELSNIKENKCNG	SEQ ID NO:299
	YTSVITIELSNIKENKCNGT	SEQ ID NO:298
	YTSVITIELSNIKENKCNGTD	SEQ ID NO:297
25	YTSVITIELSNIKENKCNGTDA	SEQ ID NO:296
	YTSVITIELSNIKENKCNGTDAK	SEQ ID NO:295
	YTSVITIELSNIKENKCNGTDAKV	SEQ ID NO:294
	YTSVITIELSNIKENKCNGTDAKVK	SEQ ID NO:293
	YTSVITIELSNIKENKCNGTDAKVKL	SEQ ID NO:292
30	YTSVITIELSNIKENKCNGTDAKVCLI	SEQ ID NO:291

	YTSVITIELSNIKENKCNGTDAKVKLIK_____	SEQ ID NO:290
	YTSVITIELSNIKENKCNGTDAKVKLIQ_____	SEQ ID NO:289
	YTSVITIELSNIKENKCNGTDAKVKLIQEQ_____	SEQ ID NO:288
	YTSVITIELSNIKENKCNGTDAKVKLIQEL_____	SEQ ID NO:287
5	YTSVITIELSNIKENKCNGTDAKVKLIQELD_____	SEQ ID NO:286
	YTSVITIELSNIKENKCNGTDAKVKLIQELDK_____	SEQ ID NO:285
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKY_____	SEQ ID NO:284
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYK_____	SEQ ID NO:283
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKN_____	SEQ ID NO:282
10	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNA_____	SEQ ID NO:281
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAV_____	SEQ ID NO:280
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAV_____	SEQ ID NO:279
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTE_____	SEQ ID NO:278
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTEL_____	SEQ ID NO:277
15	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQ_____	SEQ ID NO:276
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQL_____	SEQ ID NO:275
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQLL_____	SEQ ID NO:274
20	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQLLM_____	SEQ ID NO:273
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQLLMQ_____	SEQ ID NO:272
25	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQLLMQS_____	SEQ ID NO:271
	YTSVITIELSNIKENKCNGTDAKVKLIQELDKYKNAVTELQLLMQST_____	SEQ ID NO:13

TABLE 9

RESPIRATORY SYNCYTIAL VIRUS (RSV) DP107 F2 REGION ANALOG AMINO TRUNCATIONS		
5	QST	
	MQST	
	LMQST	
	LLMQST	SEQ ID NO:353
10	QLLMQST	SEQ ID NO:352
	LQLLMQST	SEQ ID NO:351
	ELQLLMQST	SEQ ID NO:350
	TELQLLMQST	SEQ ID NO:349
	VTELQLLMQST	SEQ ID NO:348
15	AVTELQLLMQST	SEQ ID NO:347
	NAVTELQLLMQST	SEQ ID NO:346
	KNAVTELQLLMQST	SEQ ID NO:345
	YKNAVTELQLLMQST	SEQ ID NO:344
	KYKNAVTELQLLMQST	SEQ ID NO:343
20	DKYKNAVTELQLLMQST	SEQ ID NO:342
	LDKYKNAVTELQLLMQST	SEQ ID NO:341
	ELDKYKNAVTELQLLMQST	SEQ ID NO:340
	QELDKYKNAVTELQLLMQST	SEQ ID NO:339
	KQELDKYKNAVTELQLLMQST	SEQ ID NO:338
25	IKQELDKYKNAVTELQLLMQST	SEQ ID NO:337
	LIKQELDKYKNAVTELQLLMQST	SEQ ID NO:336
	KLIKQELDKYKNAVTELQLLMQST	SEQ ID NO:335
	VKLIKQELDKYKNAVTELQLLMQST	SEQ ID NO:334
	KVKLIKQELDKYKNAVTELQLLMQST	SEQ ID NO:333
30	AKVKLIKQELDKYKNAVTELQLLMQST	SEQ ID NO:332

	DAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:331</u>
	TDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:330</u>
	GTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:329</u>
	NGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:328</u>
5	CNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:327</u>
	KCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:326</u>
	NKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:325</u>
	KENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:324</u>
	IKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:323</u>
10	NIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:322</u>
	SNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:321</u>
	LSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:320</u>
	ELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:319</u>
15	IELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:318</u>
	TIELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:317</u>
20	ITIELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:316</u>
	VITIELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:315</u>
	SVITIELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:314</u>
25	TSVITIELSNIKENKCNGTDAKVKLIKQELDKYKNAVTELQLLMQST	<u>SEQ ID NO:313</u>

The one letter amino acid code of Table 1 is used.

TABLE 10

RESPIRATORY SYNCYTIAL VIRUS (RSV) FI DP178		
REGION ANALOG CARBOXY TRUNCATIONS		
5	FYD	
	FYDP	
	FYDPL	
	FYDPLV	SEQ ID NO:385
10	FYDPLVF	SEQ ID NO:384
	FYDPLVFP	SEQ ID NO:383
	FYDPLVFPS	SEQ ID NO:382
	FYDPLVFPSD	SEQ ID NO:381
	FYDPLVFPSDE	SEQ ID NO:380
15	FYDPLVFPSDEF	SEQ ID NO:379
	FYDPLVFPSDEFD	SEQ ID NO:378
	FYDPLVFPSDEFDA	SEQ ID NO:377
	FYDPLVFPSDEFDAS	SEQ ID NO:376
	FYDPLVFPSDEFDASI	SEQ ID NO:375
20	FYDPLVFPSDEFDASIS	SEQ ID NO:374
	FYDPLVFPSDEFDASISQ	SEQ ID NO:373
	FYDPLVFPSDEFDASISQV	SEQ ID NO:372
	FYDPLVFPSDEFDASISQVN	SEQ ID NO:371
	FYDPLVFPSDEFDASISQVNE	SEQ ID NO:370
25	FYDPLVFPSDEFDASISQVNEK	SEQ ID NO:369
	FYDPLVFPSDEFDASISQVNEKI	SEQ ID NO:368
	FYDPLVFPSDEFDASISQVNEKIN	SEQ ID NO:367
	FYDPLVFPSDEFDASISQVNEKINQ	SEQ ID NO:366
	FYDPLVFPSDEFDASISQVNEKINQS	SEQ ID NO:365
30	FYDPLVFPSDEFDASISQVNEKINQSL	SEQ ID NO:364

	FYDPLVFPSDEFDASISQVNEKINQSLA_____	<u>SEQ ID NO:363</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAF_____	<u>SEQ ID NO:362</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAFI_____	<u>SEQ ID NO:361</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAFIR_____	<u>SEQ ID NO:360</u>
5	FYDPLVFPSDEFDASISQVNEKINQSLAFIRK_____	<u>SEQ ID NO:359</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAFIRKS_____	<u>SEQ ID NO:358</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAFIRKSD_____	<u>SEQ ID NO:357</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAFIRKSDE_____	<u>SEQ ID NO:356</u>
	FYDPLVFPSDEFDASISQVNEKINQSLAFIRKSDEL_____	<u>SEQ ID NO:355</u>
10	FYDPLVFPSDEFDASISQVNEKINQSLAFIRKSDELL_____	<u>SEQ ID NO:354</u>

The one letter amino acid code of Table 1 is used.

TABLE 11

RESPIRATORY SYNCYTIAL VIRUS (RSV) F1 DP178		
REGION ANALOG AMINO TRUNCATIONS		
5	DELL	
	SDELL	
	KSDELL	SEQ ID NO:416
	RKSDELL	SEQ ID NO:415
10	IRKSDELL	SEQ ID NO:414
	FIRKSDELL	SEQ ID NO:413
	AFIRKSDELL	SEQ ID NO:412
	LAFIRKSDELL	SEQ ID NO:411
	SLAFIRKSDELL	SEQ ID NO:410
15	QSLAFIRKSDELL	SEQ ID NO:409
	NQSLAFIRKSDELL	SEQ ID NO:408
	INQSLAFIRKSDELL	SEQ ID NO:407
	KINQSLAFIRKSDELL	SEQ ID NO:406
	EKINQSLAFIRKSDELL	SEQ ID NO:405
20	NEKINQSLAFIRKSDELL	SEQ ID NO:404
	VNEKINQSLAFIRKSDELL	SEQ ID NO:403
	QVNEKINQSLAFIRKSDELL	SEQ ID NO:402
	SQVNEKINQSLAFIRKSDELL	SEQ ID NO:401
	ISQVNEKINQSLAFIRKSDELL	SEQ ID NO:400
25	SISQVNEKINQSLAFIRKSDELL	SEQ ID NO:399
	ASISQVNEKINQSLAFIRKSDELL	SEQ ID NO:398
	DASISQVNEKINQSLAFIRKSDELL	SEQ ID NO:397
	FDASISQVNEKINQSLAFIRKSDELL	SEQ ID NO:396
	EFDASISQVNEKINQSLAFIRKSDELL	SEQ ID NO:395
30	DEFDASISQVNEKINQSLAFIRKSDELL	SEQ ID NO:394

	SDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:393
	PSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:392
	FPSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:391
	VFPSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:390
5	LVFPSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:389
	PLVFPSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:388
	DPLVFPSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:387
	YDPLVFPSDEFDASISQVNEKINQSLAFIRKSDELL_____	SEQ ID NO:386

10 The one letter amino acid code of Table 1 is used.

TABLE 12

HUMAN PARAINFLUENZA VIRUS 3 (HPV3) F1 REGION DP178 ANALOG CARBOXY TRUNCATIONS		
5	ITL	
	ITLN	
	ITLNN	
	ITLNNS	SEQ ID NO:446
10	ITLNNSV	SEQ ID NO:445
	ITLNNSVA	SEQ ID NO:444
	ITLNNSVAL	SEQ ID NO:443
	ITLNNSVALD	SEQ ID NO:442
	ITLNNSVALDP	SEQ ID NO:441
15	ITLNNSVALDPID	SEQ ID NO:440
	ITLNNSVALDPID	SEQ ID NO:439
	ITLNNSVALDPIDI	SEQ ID NO:438
	ITLNNSVALDPIDIS	SEQ ID NO:437
	ITLNNSVALDPIDISI	SEQ ID NO:436
20	ITLNNSVALDPIDISIE	SEQ ID NO:435
	ITLNNSVALDPIDISIEL	SEQ ID NO:434
	ITLNNSVALDPIDISIELN	SEQ ID NO:433
	ITLNNSVALDPIDISIELNK	SEQ ID NO:432
	ITLNNSVALDPIDISIELNKA	SEQ ID NO:431
25	ITLNNSVALDPIDISIELNKAK	SEQ ID NO:430
	ITLNNSVALDPIDISIELNKAKS	SEQ ID NO:429
	ITLNNSVALDPIDISIELNKAKSD	SEQ ID NO:428
	ITLNNSVALDPIDISIELNKAKSDL	SEQ ID NO:427
	ITLNNSVALDPIDISIELNKAKSDLE	SEQ ID NO:426
30	ITLNNSVALDPIDISIELNKAKSDLEE	SEQ ID NO:425

ITLNNSVALDPIDISIELNKA	SDLEES_____	SEQ ID NO:424	
ITLNNSVALDPIDISIELNKA	SDLEESK_____	SEQ ID NO:423	
ITLNNSVALDPIDISIELNKA	SDLEESKE_____	SEQ ID NO:422	
ITLNNSVALDPIDISIELNKA	SDLEESKEW_____	SEQ ID NO:421	
5	ITLNNSVALDPIDISIELNKA	SDLEESKEWI_____	SEQ ID NO:420
	ITLNNSVALDPIDISIELNKA	SDLEESKEWIR_____	SEQ ID NO:419
	ITLNNSVALDPIDISIELNKA	SDLEESKEWIRR_____	SEQ ID NO:418
	ITLNNSVALDPIDISIELNKA	SDLEESKEWIRRS_____	SEQ ID NO:417

10 The one letter amino acid code of Table 1 is used.

TABLE 13

HUMAN PARAINFLUENZA VIRUS 3 (HPV3) F1 REGION DP178		
ANALOG AMINO TRUNCATIONS		
5	RRS	
	IRRS	
	WIRRS	
	EWIRRS	SEQ ID NO :475
10	KEWIRRS	SEQ ID NO :474
	SKEWIRRS	SEQ ID NO :473
	ESKEWIRRS	SEQ ID NO :472
	EESKEWIRRS	SEQ ID NO :471
	LEESKEWIRRS	SEQ ID NO :470
15	DLEESKEWIRRS	SEQ ID NO :469
	SDLEESKEWIRRS	SEQ ID NO :468
	KSDLEESKEWIRRS	SEQ ID NO :467
	AKSDLEESKEWIRRS	SEQ ID NO :466
	KAKSDLEESKEWIRRS	SEQ ID NO :465
20	NKAKSDLEESKEWIRRS	SEQ ID NO :464
	LNKAKSDLEESKEWIRRS	SEQ ID NO :463
	ELNKAKSDLEESKEWIRRS	SEQ ID NO :462
	IELNKAKSDLEESKEWIRRS	SEQ ID NO :461
	SIELNKAKSDLEESKEWIRRS	SEQ ID NO :460
25	ISIELNKAKSDLEESKEWIRRS	SEQ ID NO :459
	DISIELNKAKSDLEESKEWIRRS	SEQ ID NO :458
	IDISIELNKAKSDLEESKEWIRRS	SEQ ID NO :457
	PIDISIELNKAKSDLEESKEWIRRS	SEQ ID NO :456
	DPIDISIELNKAKSDLEESKEWIRRS	SEQ ID NO :455
30	LDPIDISIELNKAKSDLEESKEWIRRS	SEQ ID NO :454

	ALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :453</u>
	VALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :452</u>
	SVALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :451</u>
	NSVALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :450</u>
5	NNSVALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :449</u>
	LNNSVALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :448</u>
	TLNNSVALDPIDISIELNKA KSDLEESKEWIRRS	<u>SEQ ID NO :447</u>

The one letter amino acid code of Table 1 is used.

TABLE 14

HUMAN PARAINFLUENZA VIRUS 3 (HPV3) F1 REGION		
DP107 ANALOG CARBOXY TRUNCATIONS		
5	ALG	
	ALGV	
	ALGVA	
	ALGVAT	SEQ ID NO:504
10	ALGVATS	SEQ ID NO:503
	ALGVATSA	SEQ ID NO:502
	ALGVATSAQ	SEQ ID NO:501
	ALGVATSAQI	SEQ ID NO:500
	ALGVATSAQIT	SEQ ID NO:499
15	ALGVATSAQITA	SEQ ID NO:498
	ALGVATSAQITAA	SEQ ID NO:497
	ALGVATSAQITAAV	SEQ ID NO:496
	ALGVATSAQITAAVA	SEQ ID NO:495
	ALGVATSAQITAVAL	SEQ ID NO:494
20	ALGVATSAQITAVALV	SEQ ID NO:493
	ALGVATSAQITAVALVE	SEQ ID NO:492
	ALGVATSAQITAVALVEA	SEQ ID NO:491
	ALGVATSAQITAVALVEAK	SEQ ID NO:490
	ALGVATSAQITAVALVEAKQ	SEQ ID NO:489
25	ALGVATSAQITAVALVEAKQA	SEQ ID NO:488
	ALGVATSAQITAVALVEAKQAR	SEQ ID NO:487
	ALGVATSAQITAVALVEAKQARS	SEQ ID NO:486
	ALGVATSAQITAVALVEAKQARSD	SEQ ID NO:485
	ALGVATSAQITAVALVEAKQARSDI	SEQ ID NO:484
30	ALGVATSAQITAVALVEAKQARSDIE	SEQ ID NO:483

	ALGVATSAQITA AVALVEAKQARSDIEK_____	SEQ ID NO:482
	ALGVATSAQITA AVALVEAKQARSDIEKL_____	SEQ ID NO:481
	ALGVATSAQITA AVALVEAKQARSDIEKLK_____	SEQ ID NO:480
	ALGVATSAQITA AVALVEAKQARSDIEKLKE_____	SEQ ID NO:479
5	ALGVATSAQITA AVALVEAKQARSDIEKLKEA_____	SEQ ID NO:478
	ALGVATSAQITA AVALVEAKQARSDIEKLKEAI_____	SEQ ID NO:477
	ALGVATSAQITA AVALVEAKQARSDIEKLKEAIR_____	SEQ ID NO:476

The one letter amino acid code of Table 1 is used.

	AQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:511</u>
	SAQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:510</u>
	TSAQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:509</u>
	ATSAQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:508</u>
5	VATSAQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:507</u>
	GVATSAQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:506</u>
	LGVATSAQITA AVALVEAKQARSDIEKLKEAIRD	<u>SEQ ID NO:505</u>

The one letter amino acid code of Table 1 is used.

TABLE 16

ANTI-RESPIRATORY SYNCYTIAL VIRUS (RSV) PEPTIDES	
5	TSVITIELSNIKENKCNGTDAKVKLIKQELDKYKN <u>SEQ ID NO:15</u>
	SVITIELSNIKENKCNGTDAKVKLIKQELDKYKNA <u>SEQ ID NO:16</u>
	VITIELSNIKENKCNGTDAKVKLIKQELDKYKNAV <u>SEQ ID NO:17</u>
	VAVSKVLHLEGEVNKIALSTNKAVVSLSNGVS <u>SEQ ID NO:18</u>
	AVSKVLHLEGEVNKIALSTNKAVVSLSNGVSV <u>SEQ ID NO:19</u>
10	VSKVLHLEGEVNKIALSTNKAVVSLSNGVSVL <u>SEQ ID NO:20</u>
	SKVLHLEGEVNKIALSTNKAVVSLSNGVSVLT <u>SEQ ID NO:21</u>
	KVLHLEGEVNKIALSTNKAVVSLSNGVSVLTS <u>SEQ ID NO:22</u>
	LEGEVNKIALSTNKAVVSLSNGVSVLTSKVLD <u>SEQ ID NO:23</u>
	GEVNKIALSTNKAVVSLSNGVSVLTSKVLDLK <u>SEQ ID NO:24</u>
15	EVNKIALSTNKAVVSLSNGVSVLTSKVLDLKN <u>SEQ ID NO:25</u>
	VNKIALSTNKAVVSLSNGVSVLTSKVLDLKNY <u>SEQ ID NO:26</u>
	NKIALSTNKAVVSLSNGVSVLTSKVLDLKNYI <u>SEQ ID NO:27</u>
	KIALSTNKAVVSLSNGVSVLTSKVLDLKNYID <u>SEQ ID NO:28</u>
	IALSTNKAVVSLSNGVSVLTSKVLDLKNYIDK <u>SEQ ID NO:29</u>
20	ALLSTNKAVVSLSNGVSVLTSKVLDLKNYIDKQ <u>SEQ ID NO:30</u>
	VAVSKVLHLEGEVNKIALSTNKAVVSLSNGVS <u>SEQ ID NO:18</u>
	AVSKVLHLEGEVNKIALSTNKAVVSLSNGVSV <u>SEQ ID NO:19</u>
	VSKVLHLEGEVNKIALSTNKAVVSLSNGVSVL <u>SEQ ID NO:20</u>
	SKVLHLEGEVNKIALSTNKAVVSLSNGVSVLT <u>SEQ ID NO:21</u>
25	KVLHLEGEVNKIALSTNKAVVSLSNGVSVLTS <u>SEQ ID NO:22</u>
	LEGEVNKIALSTNKAVVSLSNGVSVLTSKVLD <u>SEQ ID NO:23</u>
	GEVNKIALSTNKAVVSLSNGVSVLTSKVLDLK <u>SEQ ID NO:24</u>
	EVNKIALSTNKAVVSLSNGVSVLTSKVLDLKN <u>SEQ ID NO:25</u>
	VNKIALSTNKAVVSLSNGVSVLTSKVLDLKNY <u>SEQ ID NO:26</u>
30	NKIALSTNKAVVSLSNGVSVLTSKVLDLKNYI <u>SEQ ID NO:27</u>

KIALSTNKAVVSLSNGVSVLTISKVLDLKNYID SEQ ID NO:28

IALSTNKAVVSLSNGVSVLTISKVLDLKNYIDK SEQ ID NO:29

ALLSTNKAVVSLSNGVSVLTISKVLDLKNYIDKQ SEQ ID NO:30

-
- 5 The one letter amino acid code of Table 1 is used.

TABLE 17

ANTI-HUMAN PARAINFLUENZA VIRUS 3 (HPV3) PEPTIDES

5	TLNNSVALDPIDISIELNKA ⁵ SDLEESKEWIRRSN	<u>SEQ ID NO:33</u>
	LNNSVALDPIDISIELNKA ¹⁰ SDLEESKEWIRRSNQ	<u>SEQ ID NO:34</u>
	NNSVALDPIDISIELNKA ¹⁵ SDLEESKEWIRRSNQK	<u>SEQ ID NO:35</u>
	NSVALDPIDISIELNKA ²⁰ SDLEESKEWIRRSNQKL	<u>SEQ ID NO:36</u>
	SVALDPIDISIELNKA ²⁵ SDLEESKEWIRRSNQKLD	<u>SEQ ID NO:37</u>
10	VALDPIDISIELNKA ³⁰ SDLEESKEWIRRSNQKLDS	<u>SEQ ID NO:38</u>
	ALDPIDISIELNKA ³⁵ SDLEESKEWIRRSNQKLDSI	<u>SEQ ID NO:39</u>
	LDPIDISIELNKA ⁴⁰ SDLEESKEWIRRSNQKLDSIG	<u>SEQ ID NO:40</u>
	DPIDISIELNKA ⁴⁵ SDLEESKEWIRRSNQKLDSIGN	<u>SEQ ID NO:41</u>
	PIDISIELNKA ⁵⁰ SDLEESKEWIRRSNQKLDSIGNW	<u>SEQ ID NO:42</u>
15	IDISIELNKA ⁵⁵ SDLEESKEWIRRSNQKLDSIGNWH	<u>SEQ ID NO:43</u>
	DISIELNKA ⁶⁰ SDLEESKEWIRRSNQKLDSIGNWHQ	<u>SEQ ID NO:44</u>
	ISIELNKA ⁶⁵ SDLEESKEWIRRSNQKLDSIGNWHQS	<u>SEQ ID NO:45</u>
	SIELNKA ⁷⁰ SDLEESKEWIRRSNQKLDSIGNWHQSS	<u>SEQ ID NO:46</u>
	IELNKA ⁷⁵ SDLEESKEWIRRSNQKLDSIGNWHQSST	<u>SEQ ID NO:47</u>
20	ELNKA ⁸⁰ SDLEESKEWIRRSNQKLDSIGNWHQSSTT	<u>SEQ ID NO:48</u>
	TAAVALVEAKQARSDIEKLKEAIRDTNKAVQSVQS	<u>SEQ ID NO:49</u>
	AVALVEAKQARSDIEKLKEAIRDTNKAVQSVQSSI	<u>SEQ ID NO:50</u>
	LVEAKQARSDIEKLKEAIRDTNKAVQSVQSSIGNL	<u>SEQ ID NO:51</u>
	VEAKQARSDIEKLKEAIRDTNKAVQSVQSSIGNLI	<u>SEQ ID NO:52</u>
25	EAKQARSDIEKLKEAIRDTNKAVQSVQSSIGNLIV	<u>SEQ ID NO:53</u>
	AKQARSDIEKLKEAIRDTNKAVQSVQSSIGNLIVA	<u>SEQ ID NO:54</u>
	KQARSDIEKLKEAIRDTNKAVQSVQSSIGNLIVAI	<u>SEQ ID NO:55</u>
	QARSDIEKLKEAIRDTNKAVQSVQSSIGNLIVAIK	<u>SEQ ID NO:56</u>
	ARSDIEKLKEAIRDTNKAVQSVQSSIGNLIVAIKS	<u>SEQ ID NO:57</u>
30	RS ³⁰ DIEKLKEAIRDTNKAVQSVQSSIGNLIVAIKSV	<u>SEQ ID NO:58</u>

SDIEKLKEAIRDTNKAVQSVQSSIGNLIVAIKSVQ____SEQ ID NO:59

KLKEAIRDTNKAVQSVQSSIGNLIVAIKSVQDYVN____SEQ ID NO:60

LKEAIRDTNKAVQSVQSSIGNLIVAIKSVQDYVVK____SEQ ID NO:61

AIRDTNKAVQSVQSSIGNLIVAIKSVQDYVNKEIV____SEQ ID NO:62

5

The one letter amino acid code of Table 1 is used.

TABLE 18

ANTI-SIMIAN IMMUNODEFICIENCY VIRUS (SIV) PEPTIDES

5	WQEWERKVDLFLEENITALLEEAAIQQEKNMYELQK_____	SEQ ID NO:64
	QEWERKVDLFLEENITALLEEAAIQQEKNMYELQKL_____	SEQ ID NO:65
	EWERKVDLFLEENITALLEEAAIQQEKNMYELQKLN_____	SEQ ID NO:66
	WERKVDLFLEENITALLEEAAIQQEKNMYELQKLNS_____	SEQ ID NO:67
	ERKVDLFLEENITALLEEAAIQQEKNMYELQKLNSW_____	SEQ ID NO:68
10	RKVDLFLEENITALLEEAAIQQEKNMYELQKLNSWD_____	SEQ ID NO:69
	KVDLFLEENITALLEEAAIQQEKNMYELQKLNSWDV_____	SEQ ID NO:70
	VDFLEENITALLEEAAIQQEKNMYELQKLNSWDVF_____	SEQ ID NO:71
	DFLEENITALLEEAAIQQEKNMYELQKLNSWDVFG_____	SEQ ID NO:72
	FLEENITALLEEAAIQQEKNMYELQKLNSWDVFGN_____	SEQ ID NO:73

15

The one letter amino acid code of Table 1 is used.

TABLE 19

ANTI-MEASLES VIRUS (MEV) PEPTIDES		
5	LHRIDLGPPI SLERLDVG TN LGNAIAKLEAKELL	SEQ ID NO:76
	HRIDLGPPI SLERLDVG TN LGNAIAKLEAKELLE	SEQ ID NO:77
	RIDLGPPI SLERLDVG TN LGNAIAKLEAKELLES	SEQ ID NO:78
	IDLGPPI SLERLDVG TN LGNAIAKLEAKELLESS	SEQ ID NO:79
	DLGPPI SLERLDVG TN LGNAIAKLEAKELLESSD	SEQ ID NO:80
10	LGPPISLERLDVG TN LGNAIAKLEAKELLESSDQ	SEQ ID NO:81
	GPPISLERLDVG TN LGNAIAKLEAKELLESSDQI	SEQ ID NO:82
	PPISLERLDVG TN LGNAIAKLEAKELLESSDQIL	SEQ ID NO:83
	PISLERLDVG TN LGNAIAKLEAKELLESSDQILR	SEQ ID NO:84
	SLERLDVG TN LGNAIAKLEAKELLESSDQILRSM	SEQ ID NO:85
15	LERLDVG TN LGNAIAKLEAKELLESSDQILRSMK	SEQ ID NO:86

The one letter amino acid code of Table 1 is used.